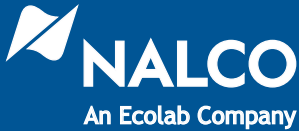
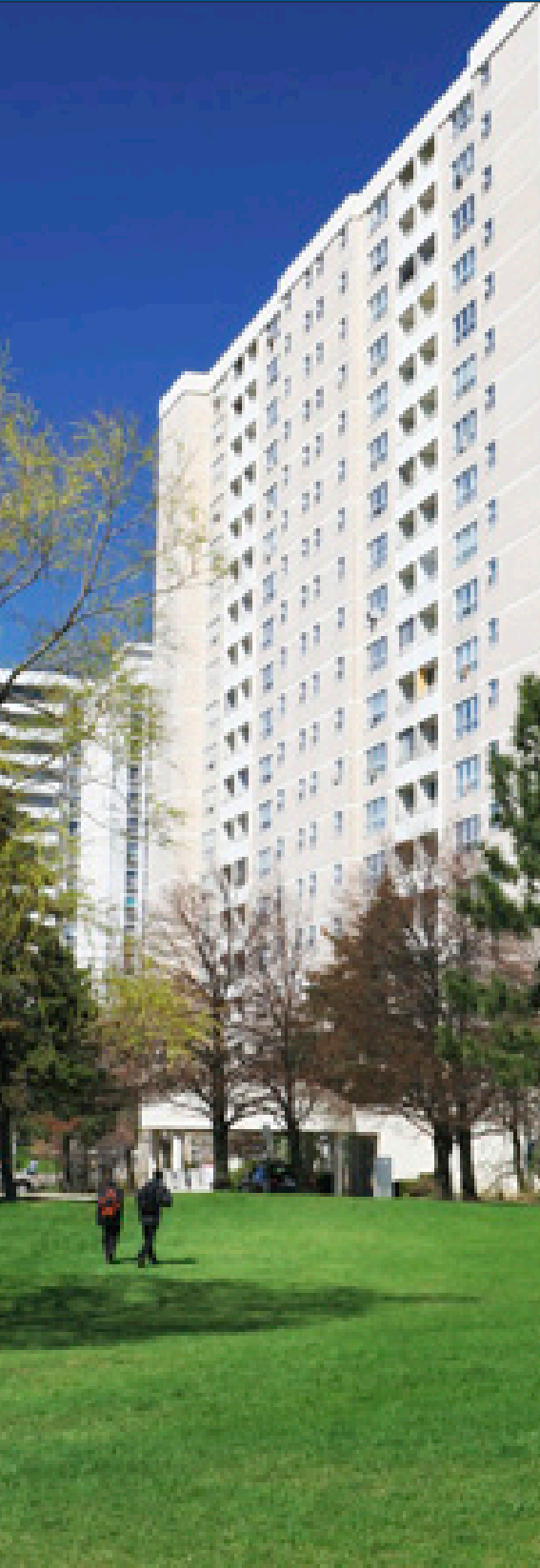


3D TRASAR® Technology for Boilers Helps Midwest Hospital Improve Boiler Results, Reduce Testing and Control Time by 80% and Save \$10,940 in Manpower Costs



CASE STUDY - INSTITUTIONAL

CH-1298



SITUATION

Monitoring and control of a steam boiler water treatment program is critical to keeping the system operating at peak efficiency. Out-of-range fluctuations in chemical operating parameters results in oxygen pitting and scale deposits on boiler tubes, condensate system corrosion and iron deposits in the boiler, reducing systems efficiency and expected equipment lifespan.

Engineers at a 350-bed hospital in the upper Midwest were spending 1.25 hours per day testing and adjusting their boiler water treatment program. Boiler inspection results were good, and the engineering staff credited their persistence in maintaining the testing regimen.

The hospital site went through a construction project that added new patient care space and a completely new powerhouse. Part of the utilities systems upgrade was an emphasis on new technology and automation to improve energy use efficiency to help the hospital meet Corporate sustainability goals. This included installing the latest high-efficiency

steam boilers, reverse osmosis for boiler make up, and an upgraded monitoring system.

Application

In an effort to increase on site engineer efficiency in handling the water treatment program, Nalco installed the 3D TRASAR Technology for Boilers control system. 3D TRASAR Boiler Technology is a patented technology that dramatically improves steam boiler program control.



(Continued on Reverse Side)

	Testing time/day	Hours per year	Pay & Benefits rate	Annual cost to test & control	Savings per year	Hours saved / year	Weeks saved per year
Before 3D TRASAR Boiler Technology	1.25 hrs	456	\$30	\$13,680	0	0	0
After 3D TRASAR Boiler Technology	0.25	91	\$30	\$2,738	\$10,940	364	9.12

Once 3D TRASAR Boiler Technology was operational, the hospital engineers saw an immediate improvement in control, where variations in chemical operating ranges were almost completely eliminated. Control was so precise that the engineering staff has

reduced testing and control time to 15 minutes per day, versus the 75 minutes per day they spent prior to using 3D TRASAR technology, an 80% reduction

The 364 hours per year saved by not having to test added 9.12 weeks to the engineering staff's time to complete other projects. In the six years since the powerhouse upgrade, the staff has gained one whole year of engineer time.

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